

Notice of Allowability

Application No.

10/559,733

Examiner

Zia R. Hashmi

Applicant(s)

GRIBB, TYE TRAVIS

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/6/2006.
2. ☒ The allowed claim(s) is/are 1-30.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-30 are allowed.
2. The following is an examiner's statement of reasons for allowance:
3. With respect to independent claim 1, prior art fails to disclose an atom probe comprising: a specimen mount whereupon a specimen to be analyzed may be situated; a detector spaced from the specimen mount; a local electrode situated between the specimen mount and detector; a filtering electrode situated between the local electrode and the detector; wherein: (i) the local electrode and the detector are each charged to a potential with respect to the specimen mount whereby ions from any specimen provided on the specimen mount are attracted toward the local electrode and the detector; and (ii) the filtering electrode bears a filtering potential with respect to the specimen mount, the filtering potential being closer to the potential of the specimen mount than to the potential of the local electrode.
4. With respect to independent claim 17, prior art fails to disclose an atom probe comprising: (a) a specimen mount bearing a datum potential; (b) a local electrode spaced from the specimen mount, the local electrode bearing an attractive potential with respect to the datum potential whereby any ions from the specimen on the specimen mount are attracted toward the local electrode; (c) a detector spaced from the local electrode and the specimen mount, the detector bearing an attractive potential with respect to the datum potential whereby any ions from a specimen on the specimen

mount are attracted toward the detector; and (d) a first intermediate electrode situated between the local electrode and the detector; wherein at least one of the specimen mount and the detector are movable to adjust the distance between the specimen mount and the detector. And,

5. With respect to independent claim 27, prior art further fails to disclose an atom probe comprising: (a) a specimen mount bearing a datum potential; (b) a detector space from the specimen mount; (c) a local electrode between the specimen mount and the detector; (d) an intermediate electrode situated between the local electrode and the detector; (e) a filtering electrode situated between the local electrode and the detector; wherein: (i) the local electrode, intermediate electrode, and filtering electrode are located along an ion flight path between the specimen mount and the detector; (ii) at least one of the specimen mount, the detector, the local electrode, the intermediate electrode, and the filtering electrode are movable along the flight path; (iii) the detector, local electrode, and intermediate electrode each bear an attractive potential with respect to the datum potential, thereby attracting any ions from a specimen on the specimen mount; and (iv) the filtering electrode bears a filtering potential closer to the potential of the specimen mount than to the potential of the local electrode.

Claims 2-16, 18-26, and 28-30 are allowed by virtue of their dependencies on the independent claims 1, 17, and 27.

CONCLUSION

6. Kelly et al. disclose (5,440,124) a high mass resolution local-electrode atom probe, which provides a rapidly pulsed field evaporation/desorption of ions from a tip.

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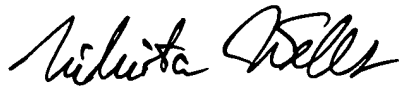
7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments of Statement of Reasons for Allowance".

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zia Hashmi whose telephone number is (571) 272-2473. The examiner can normally be reached between 8.30 AM- 5 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477.

Zia Hashmi

August 14, 2006


NIKITA WELLS
PRIMARY EXAMINER
08/15/06